

## MATERIAL SAFETY DATA SHEET



An explanation of the terms used herein may be found in OSHA 29 CFR 1910.1200,  
available from OSHA regional or area offices.

(Essentially similar to U.S. Department of Labor Form OSHA-20  
and generally accepted in Canada for information purposes)  
Do Not Duplicate This Form. Request an Original.



<b>PRODUCT</b> Air			
<b>CHEMICAL NAME</b> Air		<b>SYNONYMS</b>	Synthetic air, reconstituted air
<b>FORMULA</b> Mixture of N <sub>2</sub> and O <sub>2</sub>		<b>CHEMICAL FAMILY</b>	Not applicable
		<b>MOLECULAR WEIGHT</b>	Not applicable
<b>TRADE NAME</b> Air			

For mixtures of this product request the respective component Material Safety Data Sheets. See Section IX.

MATERIAL (CAS NO.)	Vol (%)	1984-1985 ACGIH TLV-TWA (OSHA-PEL)
Air:		
Oxygen (7782-44-7)	21	None currently established (None currently established)
Nitrogen (7727-37-9)	79	Simple asphyxiant (None currently established)

<b>BOILING POINT, 760 mm. Hg</b>	-194.3°C (-317.8°F)	<b>FREEZING POINT</b>	-216.2 to -191.3°C (-357.2 to -312.4°F)
<b>SPECIFIC GRAVITY (H<sub>2</sub>O = 1)</b>	Gas	<b>VAPOR PRESSURE AT 20°C</b>	Gas
<b>VAPOR DENSITY (air = 1)</b>	1.00	<b>SOLUBILITY IN WATER, % by wt.</b>	Negligible
<b>PERCENT VOLATILES BY VOLUME</b>	100	<b>EVAPORATION RATE (Butyl Acetate = 1)</b>	Not applicable
<b>APPEARANCE AND ODOR</b> Colorless gas at normal temperature and pressure; odorless.			

IN CASE OF EMERGENCIES involving this material, further information is available at all times:  
In the USA 304-744-3487 In Canada 514-645-5311  
For routine information contact your local supplier

Union Carbide requests the users of this product to study this Material Safety Data Sheet (MSDS) and become aware of product hazards and safety information. To promote safe use of this product a user should (1) notify its employees, agents and contractors of the information on this MSDS and any product hazards and safety information, (2) furnish this same information to each of its customers for the product, and (3) request such customers to notify their employees and customers for the product of the same product hazards and safety information.

UNION CARBIDE CORPORATION ☐ LINDE DIVISION  
UNION CARBIDE CANADA LIMITED ☐ LINDE DIVISION

**PRODUCT:** Air

**L-4560-C**  
August 1985

**THRESHOLD LIMIT VALUE:** See Section II.

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**EFFECTS OF SINGLE (ACUTE) OR REPEATED (CHRONIC) OVEREXPOSURE:** None expected.

**EMERGENCY AND FIRST-AID PROCEDURES:** No emergency care anticipated.

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FLASH POINT  
(test method)

Not applicable

AUTOIGNITION  
TEMPERATURE

Not applicable

FLAMMABLE LIMITS  
IN AIR, % by volume

LOWER

Not applicable

UPPER

Not applicable

**EXTINGUISHING MEDIA:**

Oxidizing agent. May accelerate combustion. Use media appropriate for surrounding fire.

**SPECIAL FIRE FIGHTING PROCEDURES:**

Evacuate all personnel from danger area. Immediately cool containers with water spray from maximum distance until cool then move containers away from fire area if without risk. Shut off leak if without risk.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:**

Oxidizing agent, may accelerate combustion. Contact with flammable materials may cause fire or explosion. Container may rupture due to heat of fire. No part of a container should be subjected to a temperature higher than 52°C (approximately 125°F). Most containers are provided with a pressure-relief device designed to vent contents when they are exposed to elevated temperature.

**STABILITY**

**CONDITIONS TO AVOID:** See Section IX.

UNSTABLE	STABLE
	X

**INCOMPATIBILITY (materials to avoid):** Flammable and combustible materials.

**HAZARDOUS DECOMPOSITION PRODUCTS:** None.

**HAZARDOUS POLYMERIZATION**

**CONDITIONS TO AVOID:** None currently known.

May Occur	Will not Occur
	X

**STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:**

Shut off cylinder, if without risk.

**WASTE DISPOSAL METHOD:**

Slowly release into atmosphere. Discard any product, residue, disposable container or liner in an environmentally acceptable manner, in full compliance with Federal, state and local regulations.

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RESPIRATORY PROTECTION (specify type): Not required.

VENTILATION

LOCAL EXHAUST—Not applicable.

MECHANICAL (general)—Adequate.

SPECIAL—Not applicable.

OTHER—Not applicable.

PROTECTIVE GLOVES: Preferred for cylinder handling

EYE PROTECTION: Select in accordance with OSHA 29 CFR 1910.133.

OTHER PROTECTIVE EQUIPMENT: Metatarsal shoes for cylinder handling. Select in accordance with OSHA 29 CFR 1910.132 and 1910.133.

**WARNING:** High pressure gas. May accelerate combustion. Keep oil and grease away. Close valve when not in use and when empty. Use piping and equipment adequately designed to withstand pressures to be encountered.

**MIXTURES:** When two or more gases, or liquefied gases are mixed, their hazardous properties may combine to create additional, unexpected hazards. Obtain and evaluate the safety information for each component before you produce the mixture. Consult an Industrial Hygienist, or other trained person when you make your safety evaluation of the end product. Remember, gases and liquids have properties which can cause serious injury or death.

Be sure to read and understand all labels and other instructions supplied with all containers of this product.

Suitability for use in underwater breathing is to be determined by or under the supervision of personnel experienced in the use of underwater breathing gas mixtures and familiar with the effect, methods, frequency and duration of use, hazards, side effects, and precautions to be taken.

For safety information on general handling of compressed gas cylinders, obtain a copy of pamphlet P-1, "Safe Handling of Compressed Gases in Containers" from the Compressed Gas Association, Inc., 1235 Jefferson Davis Highway, Arlington, VA 22202.

**OTHER HANDLING AND STORAGE CONDITIONS:** Never work on a pressurized system. If there is a leak, close the cylinder valve, blow down the system by venting to a safe place, then repair the leak. Store and use away from flammable materials. Never lubricate air valves, regulators, etc. with any combustible substance.

The opinions expressed herein are those of qualified experts within Union Carbide. We believe that the information contained herein is current as of the date of this Material Safety Data Sheet. Since the use of this information and these opinions and the conditions of use of the product are not within the control of Union Carbide, it is the user's obligation to determine the conditions of safe use of the product.

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